



# **Software Licensing Audit Report**

Issued by the  
Internal Audit Department  
January 31, 2006

***EXECUTIVE SUMMARY***

The Internal Audit Department has concluded its audit of the City of El Paso Information Technology (IT) Software Licensing Process. This limited scope audit was performed as part of the Internal Audit Department's Annual Audit Plan. Based on the results of the audit, we have identified 1 finding which identified a lack of a monitoring process for Software Licensing.

The IT Department can improve its compliance with Software Licensing by using a proactive process improvement initiative to enhance its existing Software Licensing policy. The finding and recommendation for improvement is summarized below.

1. The City of El Paso has a documented Software Licensing Policy that is broad in nature and sets forth the policy, and includes a disciplinary action component. However, the current City Software Licensing Policy does not have a monitoring component as part of the policy. Therefore monitoring procedures are lacking within the Information Technology Department's Software Licensing Policy. This lack of authority makes it difficult to enforce the Software Licensing Policy on an organization wide basis.

For a detailed explanation of the finding please refer to the appropriate finding contained in the body of this Audit Report.

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***BACKGROUND***

The City of El Paso Information Technology Department is comprised of the Chief Administrative Officer and Information Technology Director and the following divisions: E-Commerce, which is responsible for developing and maintaining citywide Internet and E-Government/E-Commerce initiatives; Public Safety Technology, which is responsible for citywide voice communications (telephony, cellular, and radio), radio-frequency infrastructure and communications circuits (both voice and data); Information Services, which is responsible for applications support of any developed or purchased software for example, PeopleSoft, Kronos, Tidemark; and Geographic Information Systems, which is responsible for regional GIS system.

The City of El Paso currently has approximately 2,300 personal computers connected to the network. In addition, there are approximately 5,000 email addresses assigned to city personnel.

The two types of applications utilized by the City are 1) Shared applications, which include applications that are shared by the entire organization or across multiple departments. Examples of these include PeopleSoft, Microsoft Exchange/Outlook, and the Internet Portal and 2) Local applications, which are applications for department specific needs and requirements. Examples of these include Police Department Records Management System (RMS), Traffic Management System (TMS), Judicial Information System (JIMS), Tidemark, CORE Cash Management System for tax office, ACT Appraisal and Tax System, Trash Collection System-with GPS tracking of garbage trucks, and Fleet Services vehicle maintenance system.

The Copyright Act, Title 17 of the U.S. Code, grants software owner's rights. The Act gives the copyright owner exclusive rights to reproduce the copyrighted work and to distribute copies. It also states that anyone who violates any of the exclusive rights of the copyright owner is infringing the copyright. In almost all cases when software is purchased, you are purchasing the license to use the software. The limited rights to use, reproduce, and distribute the program are defined in the End-User License Agreement (EULA). Typically, a licensed copy of a program can be installed and used on only one computer at a time, although there are normally provisions for making a backup copy for archival or disaster recovery purposes. The law also recognizes the Internet and prohibits users from uploading, downloading, and transmitting unauthorized copies of software online.

The basic types of software are listed below:

1. Public-domain-Software that is not copyrighted and may be used without restriction;
2. Freeware-Copyrighted software made available to the general public for open use for no charge by the author. But the software may not be modified;
3. Shareware-Copyrighted software that is available to the general public for a limited time for free by the author. The user is supposed to pay the author after the trial period; and
4. Commercial-The most common software used of which Microsoft products is an example. The user is required to purchase the software with a license which spells out the copying restrictions and permitted usage.

There are different types of licensing, which depends on the type of software, the number of users, personal computers and servers involved, software upgrade schedule, and budget. The basic types of licensing are listed below:

1. Single User License-Typically allows one user to install and use a program.

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2. Volume Licensing- There can be many variations of this type of licensing. It includes site licensing, where an organization is authorized to load licensed software on an agreed upon number at a specified cost.
3. Other Types of Licenses-Servers and client PCs require Client Access Licenses (CAL).

The U.S. Copyright Act lists several penalties for copyright infringement, which include, damages and criminal penalties. Software asset management should be approached in a manner similar to the management of other corporate assets.

***SCOPE***

We performed a limited scope audit of the IT Software Licensing process. The audit objectives were to determine if an adequate process is in place for the City of El Paso in the tracking and monitoring of Software Licensing compliance. This limited scope audit specifically addressed the following areas:

1. Is there a formal software licensing policy in place for the City of El Paso?
2. Are contracts or software license agreements reviewed periodically to ensure compliance?
3. Is there a training program available for city personnel on software licensing compliance?
4. How is software purchased by City Departments? Are they handled individually or by the Information Technology Department?
5. Does the Information Technology Department conduct periodic software audits?
6. Is there an inventory of software installed on City owned computers? If yes, are the master copies of the software centrally stored and properly safeguarded?
7. Is there a policy in place regarding the downloading of Internet based software?

The audit period covered operations of IT Department from September 2004 to August 2005.

The audit was conducted in accordance with the International Standards for the Professional Practice of Internal Auditing issued by the Institute of Internal Auditors.

***SIGNIFICANT FINDINGS, RECOMMENDATIONS,  
AND MANAGEMENT’S RESPONSES***

The definition of a significant finding is one that has a material effect on the City of El Paso’s financial statements, identifies an internal control breakdown, a violation of a City procedure, or a violation of a law and/or regulation, which the City is required to follow. Any finding not meeting these criteria will be classified, as an “Other Finding” the finding identified below is not considered significant.

**Finding 1**

The City of El Paso has a documented Software Licensing Policy that is broad in nature and sets forth the policy, and includes a disciplinary action component. However, the current City Software Licensing Policy does not have a monitoring component as part of the policy. Therefore monitoring procedures are lacking within the Information Technology Department’s Software Licensing Policy. This lack of authority makes it difficult to enforce the Software Licensing Policy on an organization wide basis. As a result of a lack of a monitoring component within the Software Licensing Policy the following was noted:

Software Licensing Objective	Status
1. Is there a formal software licensing policy?	Yes.
2. Periodic reviews of contracts or software license agreements are conducted to ensure compliance?	Limited reviews by IT divisions.
3. Is a training program available for city personnel on software licensing compliance?	Limited.
4. Standard software purchasing procedures exists?	Procurement policy and procedures exist. Variations exist due to software needs.
5. Does Information Technology conduct periodic software audits?	Limited.
6. Is there an inventory of software installed on City owned computers?	Varies by IT division.
7. Is there a policy in place regarding the downloading of Internet based software?	None.

**Recommendation**

The Information Technology (IT) Department should establish a monitoring requirement as part of the existing Software Licensing Policy. In addition to the monitoring component, we recommend the IT Department bring together its three divisions in a

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process improvement initiative to help create a set of Standardized Operating Procedures to enforce the monitoring requirement. These procedures should be disseminated to City of El Paso management and staff.

**Management's Response**

We are making preparations to fully implement the Computer Associates (CA) Asset management modules. This is a set of applications that the City already owns and which are being used in a limited capacity to monitor what applications are installed on City owned information processing equipment. Utilizing CA Argis in conjunction with other CA modules will allow for documentation and management of software at the user level and throughout the city. Information vital to license management will be available on demand to provide for monitoring, inspection, and reporting of license usage. CA Argis will also allow IT asset tracking from the time of acquisition and throughout the products life cycle insuring proper maintenance and disposition of licensed and assets.

To provide IT greater control over what software is installed on city PC's, IT will reacquire and implement the Websense application to provide another layer of security. Websense is proven software that will prevent users from downloading unauthorized applications from the Web either intentionally or as part of authorized downloads such as email.

We will develop standardized policies and procedures governing the distribution, access, and use of licensed assets, which are critical to a comprehensive license management as well as an effective security program. These standardized policies and procedures will also clearly define the enforcement process for violation of rules and restrictions for licensed and classified software assets. Finally, the policy will mandate a comprehensive and ongoing training and information dissemination process to insure both users and management are aware of all requirements and restrictions pertaining to licensed and classified software resources.

**Responsible Party**

Walter Townsend, Special Projects Coordinator

**Implementation Date**

Approved Licenses Management Policy – June 9, 2006  
Complete Documentation

***INHERENT LIMITATIONS***

Because of the inherent limitations of internal controls, errors or irregularities may occur and not be detected. Also, projections of any evaluation of the internal control structure to future periods are subject to the risk that procedures may become inadequate due to changes in conditions, or that the degree of compliance with the procedures may deteriorate.

***CONCLUSION***

As stated in the finding contained in this report, the City of El Paso's IT Department can strengthen their organizational compliance to its Software Licensing Policy by taking a proactive approach in establishing a monitoring process. With the establishment of a proper monitoring system, reasonable assurance of compliance with the current Software Licensing Policy will be provided to senior management.

We wish to thank the City of El Paso's IT Department management and staff for their numerous courtesies extended during the completion of this audit.

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